KANSAS DEPARTMENT OF TRANSPORTATION

COMPUTATION SHEET

Sheet 1 of 13

Project Belle	eville KDOT Yard & Parking Lot Br. N	O			Co	unty	Republic
Type of Work	2.0" Mill w/ 2.0" OL HMA Comm Gr Cla	ss A	Subject	402's	Cr	ange	e in Plans No.
Mobilization	10% (\$204,900.00 X 10%) = \$20,490.	00			Pav	_/ = \$	21,000
Milling Quantitie	es SqYd				Par	<u> = 9</u>	25 SaYd
Equipn	ard section of Yard nent Shed ge Road and Main Entrance			172.66 Se 91.33 Se 533.33 Se 127.00 Se 924.32 Se	qYd qYd <u>qYd</u>		
(Includes HMA	nlay/Overlay HMA Commercial Grade (C for Equipment Shed) 1. East Yard 2. Around new Addition 3. North section of Yard 4. Frontage Road and Main Entrance 5. West Parking Lot 6. Salt/Sand Shed			7,450.71 1,443.22 4,553.42 1,612.50 2,003.72 163.22 17,226.79	SqYd SqYd SqYd SqYd SqYd SqYd SqYd	/ = 2	049 Tons
	57' x 145 #/CuFt) ÷ 2000#/CuFt = 0.1088 'd X 0.1088 Tons / SqYd =	Tons /	SqYd		18	74.27	'Tons
6.0* nominal In	nlay/Overlay HMA Commercial Grade (Cl	ass A)					
	1. Equipment Shed			533.33 S	qYd		
	x 145 #/CuFt) + 2000#/CuFt = 0.3263 To (0.3263 Tons/SqYd = 174.03 Tons	ns / SqY	⁄d			<u>174</u>	Tons
1874.27 Tons	+ 174 Tons =				20-	18.27	' Tons
	W	ORKING	3 DAYS				
Milling	390.99 SqYd x 0.17' x 145 = 4 2000#/ ton	.82 Ton	s 1.	0 days			
	<u>533.33 SqYd x 0.5' x 145</u> = 19 2000#/ ton	.33 Ton	s 1.0	0 days			
Asphalt	2.049 tons = 1.37 1,500 tons/day		4.	O days			
Mobilization			1.0	0 days			
	Total		7.	Days	US	E	15.00 Days
Computed by	RFarrell 7-23-2013 C	hecked	by	DZ 7	-31-13		
Approved by		ate App	proved	9/2/1	3		

Republic BR. No. County Project D-9999-14 Change in Plans No._ 402's Subject Type of work 2" inlay/OL HMA KDOT Yard **East Yard Computations** Not to Scale: Spdr Rack North 265.5' 62.5 38' Brine Tank 50' Tail 177.5 MILL 4.3 Yard Fence 152' **East Yard** 255.5' Milling Computations: 33.33 SqYd 1 $50' \times 6' \div 9 \text{ SqFt/SqYd} =$ 2

 $2 \times ((48' \times 6') + (56.5' \times 6')) \div 9 \text{ SqFt/SqYd} =$

Total

Computed By: Checked By: M.ACKIEE 7-25-13 Date Approved: 8/2//3 Approved By:

139.33 SqYd 172.66 SqYd

Computation Sheet BR. No. County Republic **Project** D-9999-14 Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.___ Area around the New Addition Computations: North Not to Scale: В Wash Bay **Yard Fence** Concrete 19' **New Addition** Slot drain KDOT Building Concrete Apron 78' Yard Fence 32' 68' 40' Slot drain Yard Fence

Contractor shall maintain drainage into slot drains around new addition area.

96.51

		Computation	n Sheet		
Project	D-9999-14	BR. No.	c	ounty:	Republic
Type of w	ork 2" Inlay/OL HMA KDOT Yard	Subject	<u>402's</u> C	hange in	Plans No
Computa Not to Sc	tions for North Section of Belleville ale:	Yard:	A		North
	Salt/Sand Shed	J	150'	× 10'	
Sa Do	me	6' transitio	n mill	Yard Fence	<u>_</u>
	B Wasi Bay				

Milling 17' x 6' = 102 SqFt 120' x 6' = 720 SqFt 822 SqFt

822SqFt ÷ 9 SqFt/SqYd =

Entrance to Salt dome shall be milled to tie in smoothly with 2" yard overlay.
6 inch floor of the equipment shed shall transition into the 2" yard overlay.

91.33 SqYd

Equipment shed milling shown on sheet 5 of 13.

Computed By:	eu	Checked By: DZ	7-3173
Approved By:	_J_/	Date Approved:	8/2/13

Project D-9999-14 BR. No. County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.

Computations for Equipment Shed: North

Not to Scale:

40'

120'

1

Milling Computations:

120' x 40' ÷ 9SqFt/ SqYd

533.33 SqYd

Final asphalt in the Equipment shed is to be 6 inches deep. The inside of the shed is to be profile milled to allow the top of the asphalt to be level with the bottom of the 2" x 6" Base board around the inside perimeter of the shed.

Water should drain to the East and not pond inside the shed.

Computed By: Cif 7-23-13 Checked By: Date Approved: 7-23-15

Project D-9999-14 BR. No. County: Republic Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No. ____ Frontage Road and Main Entrance Computations: **-** 82.5' ---Not to Scale: North Yard fence 40' Gate Entrance figured with west parking lot computations: Mill Line Mill Line 20' taper into County Yard Milling Computations: ① ② 82.5' 6'+ 9 SqFt/SqYd= 55.00 SqYd 28' x 6' ÷ 9 SqFt/SqYd= 18.67 SqYd 80' x 6' ÷ 9 SqFt/SqYd= 53.33 SqYd 127.00 SqYd

Computed By: Out 7-23-/3 Checked By: Oate Approved: 7-23-/≥

Project D-9999-14 BR. No. County Republic Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No._____

Computations for West Parking Lot: Not to Scale: North Yard Fence s = Manhole Cover

Milling Computations:

No milling required in the west parking lot. Note manhole covers to work around.

← 72' **→**

Computed By: Ruf 7-93-13 Approved By:____

Checked By: Date Approved:____

Project D-9999-14 BR. No. County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans

East Yard Computations Not to Scale: Spdr Rack North 265.51 Ø ③ 38' 67' 25' 50' 2 1 D = power pole -- 48' Fuel (6) 4.3' Yard Fence 152' 255.5 **Asphalt**

East Yard

41,040.00 SqFt

② 103.5' x 265.7' =

27,499.95 SqFt

) 1/2 x 10' x 265.7'=

152' x 270'=

1,328.50 SqFt

Entrance

25' x 38' =

950.00 SqFt

 $2 \times (r^2 - (\P r^2/4) =$

 $2 \times (6^2 - (3.14 \times 6^2/4) =$

15.48 SqFt

Total Area

70,833.93 SqFt

Minus Concrete areas

S Brine tank
Fuel

24.5' x 67': -1,641.50 SqFt

44.5' x 48' : -2,136.00 SqFt

Total

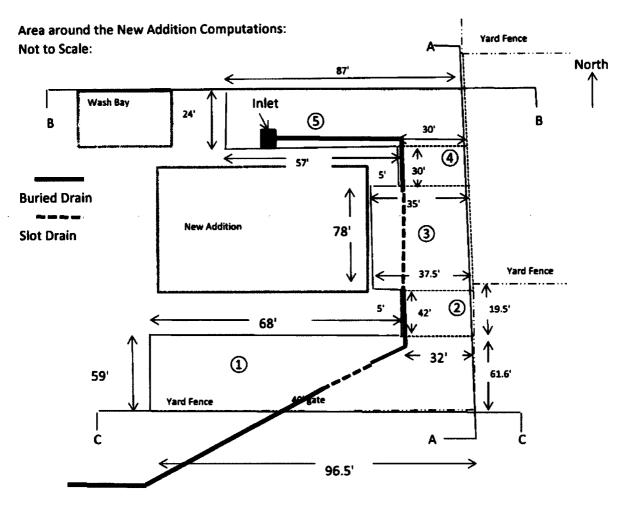
-3,777.50 SqFt

70,833.93 SqFt - 3,777.5 SqFt = 67,056.43 SqFt

 $67,056.43 \div 9 \text{ SqFt/SqYd} = 7,450.71 \text{ SqYd}$

Republic County BR. No. **Project** D-9999-14

402's Change in Plans No.___ Type of work 2" inlay/OL HMA KDOT Yard Subject



Asphalt Computations:

12345 (59'+61.6')/2 x 96.5' = 5,818.95 SqFt 42' x((32'+32.5')/2) = 1,354.50 SqFt

78' x ((37.5'+ 35')/2) =

2,827.50 SqFt

30' x 30' = 900.00 SqFt 87' x 24' = 2088.00 SqFt

Totals 12,988.95 SqFt

12,988.95 SqFt ÷ 9 SqFt / SqYd = 1,443.22 SqYd

In to

Contractor to maintain drainage around areas of slot drains.

Computed By: R.F. 7-25-13 Checked By:____ Approved By: Date Approved: 8/5/17

Kansas Department of Transportation

Computation Sheet BR. No. County Republic **Project** D-9999-14 Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No._ **Computations for North Section of Belleville Yard:** North Not to Scale: Salt/Sand 150' x 10' ditch Yard Fence Salt 315 120' 1 В В 198' Wash Bay ③ 19' **Asphalt Computations:** 1 2 3 315' X ((198' + 115')/2)= 49,297.50 SqFt 41' x 19' = 779.00 SqFt 43' x ((57' + 43')/2)= 2,150.00 SqFt **Totals** 52,226.50 SqFt / **Minus Building Areas: Equipment Shed** 120' x 40' = 4,800.00 SqFt Salt Dome $(61.6' / 2)^2 \times 3.14 =$ 2,978.73 SqFt / Salt Entrance 21' x 17' = 357.00 SqFt 1 Salt/Sand Shed 57.5' x 28' = 1,610.00 SqFt ~ **Drainage Ditch** 150' x 10' = 1,500.00 SqFt ~ **Totals** 11,245.73 SqFt 52,226.5 SqFt - 11,245.73 SqFt = 40,980.77 SqFt

40,980.77 SqFt + 9 SqFt/SqYd = 4,553.42 SqYd

Computed By: 7-23-13 luf	Checked By:
Approved By:	Date Approved 7.25.12

County Republic BR. No. **Project** D-9999-14 Change in Plans No.___ 402's Type of work 2" Inlay/OL HMA KDOT Yard Subject Frontage Road and Main Entrance Computations: 82.5' -North Not to Scale: Yard fence 40' Gate **(1)** 30' 35' Entrance figured with west parking lot computations: r=18' 106 20' 32' 34' 4 (3) (3) 22' r=18' r=25' **Asphalt Computations:** 1 35' x ((82.5' + 92')/2)= 3,053.75 SqFt 0.5 x 9' x 92'= 414.00 SqFt $r^2 - (\P r^2/4) =$ $18^2 - (3.14 \times 18^2/4) =$ 69.66 SqFt 92' x ((20'+32')/2)= 2,392.00 SqFt 99' x ((32'+34')/2)= 3,267.00 SqFt $106' \times ((34'+30')/2)=$ 3,392.00 SqFt 30' x 30'= 900.00 SqFt $2 \times (r^2 - (\eta r^2/4)) =$ $2 \times (25^2 - (3.14 \times 25^2/4)) =$ 268.75 SqFt 7 28' x 22'= 616.00 SqFt $2 \times (18^2 - (3.14 \times 18^2/4)) =$ 139.32 SqFt

14,512.48 SqFt ÷ 9 SqFt/SqYd = 1,612.50 SqYd

Computed By: RUT 7-23-13 Checked By: Date Approved 7: 29:13

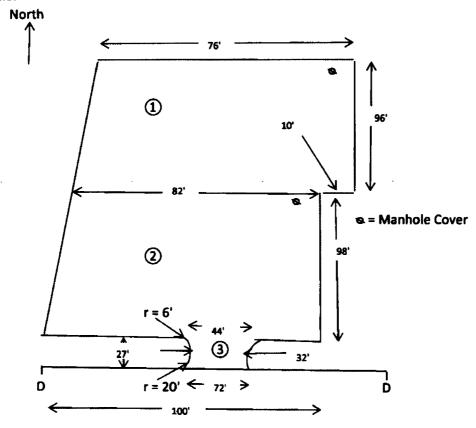
14,512.48 SqFt

Project D-9999-14 BR. No. County Republic

Type of work 2" Inlay/OL HMA KDOT Yard Subject 402's Change in Plans No.__

Computations for West Parking Lot:

Not to Scale:



Asphalt Computations:

1	96' x ((76' +92')/2)=	9.064.00	Carta C
\odot	• • • • • • • • • • • • • • • • • • • •	8,064.00	_
② ③	98' x ((82' + 100')/2)=	8,918.00	SqFt
3	27' x 32'=	864.00	SqFt /
	2 x (r²-(¶r²/4)=		
	$2 \times (6^2 - (3.14 \times 6^2/4) =$	15.48	SqFt [
	$2 \times (20^2 - (3.14 \times 20^2/4) =$	172.00	SqFt
Totals		18,033.48	SaFt

18,033.48 SqFt ÷ 9 SqFt/SqYd = 2,003.72 SqYd

Computed By: Luc 7-23-13 Checked By: Date Approved 7-25-13

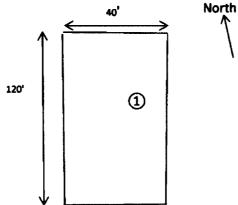
Republic BR. No. County **Project** D-9999-14 Subject 402's Change in Plans No.___ Type of work 2" Inlay/OL HMA KDOT Yard **Computations for Salt Sand Shed:** North Not to Scale: 1 56.5 1 26' x 56.5' = 1,469 SqFt

1,469 SqFt ÷ 9 SqFt/SqYd = 163.22 SqYd

Asphalt in Salt Sand shed to be 2 inches deep.

Computations for Equipment Shed:

Not to Scale:



Asphalt Computations:

120' x 40' =

4,800 SqFt

4,800 SqFt ÷ 9 SqFt/SqYd = 533.33 SqYd
Asphalt in Equipment shed to be 6 inches deep.

Computed By: RY 7-25-13 Checked By: M. ALKIRE 7-25-13

Approved By: Date Approved 8-93-13